1903

APPENDICE.

RAPPORT DE L'OFFICIER DE LA SANTÉ PUBLIQUE.

1903

Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

https://archive.org/details/b31986742

RAPPORT DE L'OFFICIER DE LA SANTÉ PUBLIQUE.

Letter from the President of the Board.

Board of Health, Guernsey, 1st June, 1904.

Sir,

I have the honour to present the Fifth Annual Report of the Medical Officer of Health for the year 1903.

This Report was approved by the Board of Health at its meeting held on the 4th May last, when it was resolved that, with your permission, it should be printed as an Appendix to the Billet d'État, and that a certain number of copies be struck off in the usual way.

I have, &c., &c.,

JOHN N. BROUARD,
President, Board of Health.

To Sir Henry A. Giffard, K.C.,
Bailiff, and
President of the States of Guernsey.

Letter from the M. O. H.

States Office, Guernsey, April 20, 1904.

To the President and Members of the Board of Health for the Island of Guernsey.

Gentlemen,

I beg to submit for your approval my Annual Report as Medical Officer of Health for the year 1903; and also as an Appendix, Mr. A. Collenette's observations on "The Weather."

I have, &c., &c.,

HY. DRAPER BISHOP,
Medical Officer of Health.

1903

REPORT.

POPULATION.

The population for the middle of 1903, upon which our statistics are based, is computed to be 41,050.

Our estimation of the population at any given time is, of course, based upon the deductions drawn from the variations of previous years with any special corrections that may appear necessary.

It, therefore, follows that when next the census of population is taken our estimate may prove to be very wide of the mark. The opportunity of correcting these figures occurs at present, only once in ten years, but in the future the census will probably be taken at more frequent intervals.

As far as I can judge the religious refugees from France who have settled in the Island have not as yet been sufficiently numerous to render any alteration in the estimated population necessary.

Table I. (Incorp. Soc. of M. O. H., 1900), for Whole District.

YEAR.	Population estimated to middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES.	
		Number.	Rate per 1,000	Number.	Rate per 1,000 registered.	Number.	Rate per 1,000.
Column...	1	2	3	4	5	6	7
1893	35,884	1,143	31·91	185	161·9	692	19·28
1894	36,289	1,093	30·12	135	123·5	632	17·41
1895	36,741	1,126	30·62	175	155·4	712	19.38
1896	37,245	1,228	32·97	129	105·0	547	14·68
1897	37,801	1,157	30·60	193	166·8	708	18·73
1898	38,415	1,161	30·22	194	167·0	705	18·35
1899	39,072	1,121	28·69	151	134·7	666	17·04
1900	39,703	1,011	25·46	145	143·4	624	15·72
1901	40,300	1,096	27·20	190	171·3	699	17·34
1902	40,550	1,128	27·80	161	142·7	657	16·20
Averages for ten years, 1893-1902.	38,200	1,126	29·55	165	147·1	664	17·41
1903	41,050	1,120	27·28	112	100	597	14·54

41710 1144. 27.42 690. 16.51.

BIRTHS.

The number of births registered during the year was 1,120, 551 being females and 569 males. The birth rate is therefore 27·28 per 1,000. The average for the last 10 years is 29·5. This is a low figure, being considerably below the lowest rate recorded in England, viz. : 28·5 per 1,000 in the year 1901.

A reference to Table I will show how marked was the effect of the late South African war in causing a lowering of the birth rate, and this influence has not yet passed off, so that the birth rate for 1903 is in much the same ratio as in the four preceding years.

The number of illegitimate births was 46, of which 18 occurred in the Town Parish, a per centage of 4·2, and 28 in the country, or 4 per cent. This is about the same rate as that recorded in England and Wales.

DEATHS.

The number of deaths in 1903 was 597, a death rate of 14·54. This is very much lower than the average of the past ten years, which is 17·4.

The heavy rains which prevailed both in England and here during 1903 must have had a beneficial effect in lowering the general death rate, as in nearly every case the published rates show a great diminution over previous years.

The rainfall was so great generally and such continuously heavy falls occurred, that the impurities of the soil must have been washed out and carried away in solution, in a way that less continuous rains could not have effected. The comparative absence of dust, house flies, and the low temperature of the soil have also been favourable factors.

As summer diarrhoea, measles, whooping cough, have been practically absent, and notifiable infectious diseases have been also fewer in number than usual, it is not surprising to find that the infantile death rate has been exceptionally low, namely 100 per 1,000 births registered.

This figure has only once been approached hitherto, viz. : in 1896, when similar atmospheric conditions prevailed ; in was then 105.

In Guernsey the number of persons who lived to a ripe old age has been always remarkably large, and this year is no exception to the rule as 38 deaths occurred from Senile Decay in persons between 80 and 90, and 9 in persons over 90.

During the year the venerable doyenne of the island entered into her rest in her 111th year, and a unique link with the past was thus broken.

With the natural advantages we enjoy in this highly favoured Island, and the absence of factories and injurious trades, coupled with the large area that might be described as " rural," I cannot help thinking that our death rate should be lower than it has been in the past, and with the many sanitary improvements that year by year are now being carried out, we can with confidence trust that this will be so in the future.

The number of Deaths which took place in the Parochial Hospitals and Asylums was 35 in the Town and 20 in the Castel.

I do not pretend that my classification of deaths is as complete as it might be, but it is the best that I am able to do with the materials at my disposal.

Table A.

RETURN OF DEATHS REGISTERED DURING THE YEAR 1903.

PARISH	*A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*K*	Tl.
GENERAL DISEASES AND INJURIES.											
Diathethic.											
Acute Rheumatism	2	1	-	-	-	-	-	-	-	-	3
Diseases of the Blood.											
Hœmophilla	-	-	1	-	-	-	-	-	-	-	1
Osteo Malicia	1	-	-	-	-	-	-	-	-	-	1
Epidemic.											
Diphtheria	4	-	1	2	-	2	-	-	-	-	9
Enteric Fever	-	-	1	2	-	-	-	-	-	-	3
Enteritis	-	1	-	-	-	-	-	-	-	-	1
Influenza	1	-	-	-	-	-	-	-	-	-	1
Scarlet Fever	-	-	-	-	-	-	-	-	1	-	1
Measles	-	-	-	1	-	-	-	-	-	-	1
Ill-defined.											
Brain Fever	-	-	1	-	-	-	-	-	-	-	1
Dropsy	2	-	-	1	-	-	-	-	-	-	3
Hœmorrhage	1	-	-	-	-	-	-	-	-	-	1
Jaundice	1	1	-	-	-	-	-	-	-	-	2
Mania	-	-	-	1	-	-	-	-	-	-	1
Natural Causes	1	-	-	-	-	-	-	-	-	-	1
Other ill-defined	1	-	-	1	-	-	-	-	-	-	2
Infancy and Old Age.											
Convulsions	13	7	5	1	1	4	-	1	3	1	36
Debility at Birth	6	3	3	-	-	-	-	-	-	-	12
Marasmus	10	3	4	1	-	-	-	-	1	2	21
Premature Birth	3	2	3	1	-	-	-	-	-	-	9
Senile Decay	43	10	3	3	1	1	3	-	13	2	79
Infective.											
Phthisis	30	13	9	5	2	1	2	2	7	2	73
Other Tubercular	14	3	2	4	1	-	-	-	1	-	25
Undefined Tubercular	1	1	2	-	-	-	-	-	-	-	4
Intemperance.											
Alcoholism	2	-	-	1	-	-	-	-	-	-	3
Septic.											
Pyæmia	1	-	-	-	-	1	-	-	-	-	2
Puerperal Fever	-	-	-	-	-	1	-	-	-	-	1
Septicæmia	1	-	1	-	-	-	-	-	-	-	2

Tumours.											
Malignant	13	4	1	7	3	-	1	1	1	3	34
Undefined	2	3	-	-	-	1	-	-	-	-	6
Violence or Accident.											
Burns	-	-	-	-	-	-	-	1	-	-	1
Cycle Accident	-	-	-	1	-	-	-	-	-	-	1
Drowning	1	4	-	2	-	-	-	-	-	-	7
Falls	1	-	-	-	-	-	-	-	-	-	1
Exposure	-	-	-	1	-	-	-	-	-	-	1
Quarry Accident	-	-	1	-	-	-	-	-	-	-	1
Suffocation	1	1	-	-	-	-	-	-	-	-	2
Suicide	1	-	-	-	-	-	1	-	1	-	3
DISEASES OF SPECIAL ORGANS.											
Alimentary.											
Intestines	9	1	2	-	-	-	-	-	-	-	12
Liver	-	1	1	-	-	1	-	1	-	1	5
Peritonitis	2	-	1	1	-	-	-	-	-	-	4
Stomach	1	2	-	-	-	-	1	-	-	-	4
Nervous.											
Epilepsy	-	-	-	2	-	-	-	-	1	-	3
Cerebral Tumours	1	-	-	-	-	-	-	-	-	-	1
Meningitis	2	-	-	-	-	-	-	-	1	-	3
Paralysis	9	2	2	3	1	3	2	2	1	1	26
Circulatory.											
Apoplexy	8	7	3	4	3	-	-	-	1	4	30
Morbus Cordis	24	5	4	5	2	1	-	1	4	4	50
Aneurism	-	-	1	-	-	-	-	-	-	-	1
Atheroma	2	1	-	-	-	-	-	-	-	-	3
Embolism	2	-	-	-	-	-	-	-	-	-	2
Thrombosis	3	-	-	-	-	-	-	-	-	-	3
Senile Gangrene	1	-	-	-	-	-	-	-	-	-	1
Respiratory.											
Asthma	-	-	1	-	-	-	-	-	-	-	1
Bronchitis	18	7	8	1	-	-	2	2	-	3	41
Broncho Pneumonia	2	-	1	-	-	-	-	-	-	-	3
Pneumonia	15	1	7	3	-	-	-	-	-	2	28
Pleurisy	-	-	-	-	-	-	-	1	-	-	1
Urinary.											
Cystitis	-	-	1	-	-	-	-	-	-	-	1
Diabetes	2	-	1	1	1	-	-	-	-	-	5
Nephritis	6	1	1	-	-	-	-	1	2	2	13
	264	85	72	55	15	16	12	13	38	27	597

TABLE

(INCORP. SOC.

Names of Parishes.	ST. PETER-PORT.				ST. SAMPSON'S.				THE VALE.				CASTEL.				ST. SAVIOUR'S.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
Column ...	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
1893.........	17207	506	344	94	4632	157	63	16	4086	159	70	23	2479	72	63	16	935	29	14	2
1894.........	17301	477	310	67	4717	183	71	19	4172	145	56	12	2511	71	56	11	946	26	14	3
1895.........	17402	499	350	61	4813	156	93	41	4269	154	81	24	2547	71	44	9	958	31	22	8
1896.........	17514	520	242	55	4921	202	70	19	4377	169	67	20	2586	75	56	4	972	33	23	7
1897.........	17637	481	353	81	5042	179	79	38	4496	172	80	29	2627	69	47	11	988	33	15	2
1898.........	17770	467	335	78	5177	185	78	36	4626	161	78	25	2670	87	75	14	1007	24	15	4
1899.........	17914	469	298	47	5317	177	90	30	4768	166	72	28	2717	71	62	11	1027	24	19	6
1900.........	18044	436	302	65	5452	178	62	19	4921	170	82	25	2761	70	64	11	1045	30	17	4
1901.........	18162	440	303	66	5573	166	95	31	5082	167	101	45	2802	69	64	11	1062	27	14	3
1902.........	18240	459	302	60	5622	175	83	25	5133	168	77	28	2812	65	60	10	1067	27	16	2
Average of 10 years to 1902.	17719	485	343	67	5126	175	78	27	4593	163	76	26	2651	72	59	11	1000	30	16	4
1903.........	18464	421	264	38	5681	200	85	26	5196	173	72	25	2846	87	55	6	1080	26	15	1

II.

OF M.O.H., 1900.)

Names of Parishes.	ST. PETER-IN-THE WOOD.				TORTEVAL.				FOREST.				ST. MARTIN'S.				ST. ANDREW'S.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
Column ...	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
1893.........	1351	55	30	11	446	14	10	1	687	21	13	1	2727	87	53	15	1334	43	32	8
1894.........	1371	44	26	7	446	8	7	1	701	21	10	2	2770	79	66	10	1354	39	18	3
1895.........	1394	54	29	7	446	9	10	2	716	18	14	0	2819	82	45	12	1377	52	24	11
1896.........	1420	56	20	6	446	14	10	0	733	27	7	6	2874	90	32	8	1402	42	20	4
1897.........	1449	37	27	6	446	15	9	1	751	25	14	8	2935	106	56	16	1430	40	12	1
1898.........	1481	57	29	16	446	13	5	0	775	29	12	3	3002	101	48	13	1461	37	30	5
1899.........	1516	50	32	10	446	6	9	1	800	22	19	6	3073	89	45	6	1494	47	20	6
1900.........	1548	57	25	9	446	19	8	2	822	23	19	4	3140	100	39	6	1524	38	17	2
1901.........	1577	57	23	8	446	6	6	2	842	27	20	7	3201	88	46	10	1552	49	27	6
1902.........	1587	53	31	11	447	14	12	4	851	30	13	4	3226	93	43	14	1564	44	20	3
Average of 10 years to 1902.	1469	52	29	9	446	10	8	1	767	24	14	4	2976	91	47	11	1449	43	22	5
1903.........	1619	56	16	4	453	8	12	1	862	22	13	3	3265	90	38	4	1584	37	27	4

Table IV. (Incorp. Soc. of M. O. H., 1903).

CAUSES OF, AND AGES AT, DEATH OF THE DEATHS REGISTERED DURING YEAR 1903.

CAUSES OF DEATH.	WHOLE ISLAND.						
	All Ages.	Under 1.	1-5.	6-15.	16-25.	26-65.	66 and upw'ds.
General Diseases and Injuries.							
Diathetic.							
Acute Rheumatism	3	—	—	—	—	3	—
Diseases of the Blood.							
Hæmophilia	1	1	—	—	—	—	—
Peter Malacia	1	—	—	—	—	1	—
Epidemic.							
Diphtheria	9	—	9	—	—	—	—
Enteric Fever	3	—	—	—	—	3	—
Enteritis	1	1	—	—	—	—	—
Influenza	1	—	—	—	—	—	1
Scarlet Fever	1	1	—	—	—	—	—
Measles	1	—	1	—	—	—	—
Ill-defined.							
Brain Fever	1	—	—	—	—	1	—
Dropsy	3	—	—	—	—	2	1
Hæmorrhage	1	—	—	—	—	1	—
Jaundice	2	1	—	—	—	1	—
Mania	1	—	—	—	—	1	—
Natural Causes	1	—	—	—	—	1	—
Other ill-defined	2	—	—	—	—	2	—
Infancy and Old Age.							
Convulsions	36	26	10	—	—	—	—
Debility at Birth	12	12	—	—	—	—	—
Marasmus	21	19	2	—	—	—	—
Premature Birth	9	9	—	—	—	—	—
Senile Decay	79	—	—	—	—	—	79*
Infective.							
Phthisis	73	3	1	5	18	44	2
Other Tubercular	25	4	8	10	2	1	—
Undefined Tubercular	4	—	2	—	—	2	—
Intemperance.							
Alcoholism	3	—	—	—	1	1	1
Septic.							
Pyæmia	2	1	—	—	—	1	—
Puerpureal Fever	1	—	—	—	1	—	—
Septicæmia	2	—	—	—	2	—	—

Tumours.							
Malignant	34	—	—	—	—	15	19
Undefined	6	—	—	—	—	3	3
Violence or Accident.							
Burns	1	—	1	—	—	—	—
Cycle Accident	1	—	—	—	1	—	—
Drowning	7	—	—	2	3	2	—
Falls	1	—	—	—	—	—	1
Exposure	1	—	—	—	1	—	—
Quarry Accident	1	—	—	—	—	1	—
Suffocation	2	—	—	—	—	1	1
Suicide	3	—	—	—	—	3	—
DISEASES OF SPECIAL ORGANS.							
Alimentary.							
Intestines	12	5	1	—	1	4	1
Liver	5	—	—	—	—	5	—
Peritonitis	4	—	—	—	—	4	—
Stomach	4	2	—	—	—	1	1
Nervous.							
Epilepsy	3	—	—	—	—	3	—
Cerebral Tumour	1	—	—	—	—	1	—
Meningitis	3	—	—	—	1	—	2
Paralysis	26	—	—	1	1	5	19
Circulatory.							
Apoplexy	30	—	—	—	—	16	14
Morbus Cordis	50	—	—	—	1	30	19
Aneurysm	1	—	—	—	—	1	—
Atheroma	3	—	—	—	—	1	2
Embolism	2	—	—	1	—	—	1
Thrombosis	3	—	—	—	—	—	3
Senile Gangrene	1	—	—	—	—	—	1
Respiratory.							
Asthma	1	—	—	—	—	1	—
Bronchitis	41	20	9	2	4	4	2
Broncho Pneumonia	3	1	2	—	—	—	—
Pneumonia	28	6	3	1	1	9	8
Pleurisy	1	—	—	—	—	1	—
Urinary.							
Cystitis	1	—	—	—	—	—	1
Diabetes	5	—	—	—	1	3	1
Nephritis	13	—	—	1	2	3	7
	597	112	49	23	41	182	190

*SENILE DECAY.—From 66 to 80	32
,, 81 ,, 90	38
,, 91 ,, 100	8
Above 100	1
	79

A.—NOTIFIABLE SPECIFIC DISEASES.

DIPHTHERIA

This disease was not so prevalent in 1903 as in the preceding year, 107 cases being notified as against 179 in 1902.

The parishes which suffered most severely in 1902, namely, St. Sampson's, The Vale, Forest, Torteval, and St. Peter-in-the-Wood, furnished but few cases during 1903, when the Town Parish was the chief sufferer. This was largely due to an epidemic in November and December, when 36 out of 64 cases of the year were notified. No less than 6 cases were imported ones, viz. : 5 in the Town and 1 in the Country ; they were all notified early and no subsequent cases were traced to them. Four patients were visitors and two residents in the Island.

The one epidemic followed the usual course of the disease, that is, it prevailed in the fall of the year.

Cases occurred in the Town and Country Hospitals, and both institutions were carefully examined and reported upon, with the co-operation of the authorities concerned.

The epidemic at the Salem Infant Schools started in November, a mild and unrecognised case, which subsequently proved fatal, having attended the school for some days when ill. When this fact came to light, the school children were examined and four were found to be suffering from Diphtheria ; the schools were therefore closed for eight days and disinfected.

Upon the re-assembling of the school the children were again examined with the result that three more were found affected with the disease ; the schools were therefore again closed and disinfected. The total number of cases due to this school was twelve, the head mistress being the last to fall ill.

The school buildings, which were formerly only used as a Sunday School, were so unsuitable for constant occupation that the Education Department readily fell in with my suggestion that they should be no longer used as a day school.

Outbreaks of Diphtheria vary greatly both in their virulence and in their infectivity, and the cases occurring in the last two months of the year were particularly severe and infective.

With the exception of the first case already referred to, no deaths occurred, but there were several patients whom I did not expect could live, the cardiac complications being severe and prolonged.

As an example of the high degree of infectivity, in two instances 4 children, in three instances 2, and in one instance 3, were attacked in the same families.

Last year I contrasted the death rates of patients treated at the Hospitals and those isolated at home, the percentages being respectively 4·8 and 16. This year the Sanatorium death rate is the same as last, 4·8, but the home death rate is 20·8 against 16.

During the year the Sanatorium has received more than its fair share of severe cases, and the death rate is remarkably low. There is but little difficulty in removing the severe cases to the Sanatorium, a common remark from the parents in dealing with mild cases is that the child is not ill enough to be removed ; if he were, they would consent to his going.

Apart from the cases which die from Toxemia in the first few days of the illness, it is a paradox but a true one, that if the patient be isolated at home, the more severe are his initial symptoms, the better is his chance of recovery.

Table B.

DIPHTHERIA—Cases Notified and Number of Deaths.

Parish.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Tl.
St. Peter-Port	4	3	3	2	3	1	6	2	2	2	13	23	64
St. Sampson's	1	—	—	3	1	—	—	1	—	—	—	—	6
Vale	1	1	2	—	—	—	—	—	—	—	—	—	4
Castel	1	—	—	—	—	1	1	1	—	1	1	1	7
St. Saviour's	—	1	—	—	—	—	—	—	—	1	—	—	2
St. Peter-in-the-Wood	—	1	2	1	3	1	1	—	—	—	—	—	9
Torteval	—	1	1	—	—	—	—	—	—	—	—	—	2
Forest	1	—	—	—	—	—	—	—	—	—	—	—	1
St. Martin's	5	—	1	—	1	—	—	—	1	—	2	1	11
St. Andrew's	—	—	—	—	—	—	—	—	—	—	—	1	1
Total	13	7	9	6	8	3	8	4	3	4	16	26	107
Deaths—Town	1	—	—	—	—	—	—	—	—	—	—	—	1
Country	1	2	1	—	1	1	—	1	—	—	1	—	8

DIPHTHERIA.—CASES NOTIFIED AND NUMBER OF DEATHS.

SCARLET FEVER.

Twenty cases were reported as against 116 last year, and again the greater number occurred at the beginning instead of the fall of the year.

On the whole the type of disease was more severe than that seen in former years, though not so severe as the few cases admitted to the Hospital in the last three months of 1902.

Several patients suffered from albuminuria, and one died from its effects.

Three children attending the Trinity Infant Schools were attacked in November, so the school children were all examined, and the school buildings closed for eight days and disinfected, with the result that no further cases occurred.

An assistant nurse contracted a mild attack of the disease.

Table C.

SCARLET FEVER CASES DURING 1903.

Parish.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Tl.
St. Peter-Port	4	—	1	—	—	—	—	—	1	—	3	3	12
St. Sampson's	—	—	—	—	—	—	—	—	—	—	—	—	0
Vale	—	1	—	—	—	—	—	—	—	—	—	—	1
Castel	—	1	—	—	—	—	—	—	—	—	—	—	1
St. Saviour's	—	—	—	—	—	—	—	—	—	—	—	—	0
St. Peter-in-the-Wood	—	—	1	2	—	—	—	—	—	—	—	—	3
Torteval	—	—	—	—	—	—	—	—	—	—	—	—	0
Forest	—	—	—	—	—	—	—	—	—	—	—	—	0
St. Martin's	—	2	—	—	—	—	—	—	—	1	—	—	3
St. Andrew's	—	—	—	—	—	—	—	—	—	—	—	—	0
Total	4	4	2	2	—	—	—	—	2	—	3	3	20
Deaths—Town	—	—	—	—	—	—	—	—	—	—	—	—	0
Country	—	1	—	—	—	—	—	—	—	—	—	—	1

SCARLET FEVER.—CASES NOTIFIED.

ENTERIC FEVER.

Eleven cases of this disease were notified during the year, as against 5, 6, 3, and 11 for the preceding four years. Three of these were fatal. All were removed to the Sanatorium, but, unfortunately, some were not notified until the third week of their illness, and the non-recognition of their malady must have prejudiced their chances of recovery.

Enteric Fever is often so insidious in its onset that medical aid is not sought until the patient has struggled to keep about for day after day, in the vain hope of feeling better, instead of the final exhaustion which compels the complete rest so vitally necessary from the beginning of the illness at length supervening.

Widal's re-action, although a great help in diagnosis, in many cases often gives no help until the patient has been ill for eight or ten days, and it would be a great benefit to the patient and the community in general if doubtful cases were removed to the Sanatorium as soon as the symptoms warrant even a suspicion of the disease. Small isolation wards are provided for the purpose, and the patient would be treated as a "suspected" case, until more definite symptoms supervened. If the suspicion were not correct he would be soon able to return to his home, but if it were so, the patient would have gained immensely by the early recognition of his disease.

As regards the community and not the individual, persons in contact with the patient would run less risk of contracting a similar illness, the risk being of course greater before the nature of the sickness is suspected, and sewers or cess-pits would only receive infested discharges for a shorter period.

Many of my colleagues concur with me in the belief that cases of Enteric Fever occur in the island which either escape recognition or are not reported, and this view is supported by the fact that in the past three years 29 deaths in persons over 15 years of age have occurred, which in the present unsatisfactory system of death registration must be returned under the heading of "Alimentary," "Intestines."

Of the eleven cases, one was admitted from a ship in the harbour, and another contracted the disease on a South African liner, upon which he was a steward. In two cases the cause was supposed to be drinking of water from a stream in one of the bays of the island, and notice boards were at your direction placed in the most frequented bays warning persons that the water was dangerous for drinking purposes.

Two, possibly three, patients probably owed their illness to eating polluted shell fish (not from local waters), and of the remainder careful inquiry failed to elicit the cause, nor could any connection be traced between them. One doubtful case was admitted in 1903, but fortunately it did not prove to be Enteric, and the patient was able to be discharged after a stay of six days in the Sanatorium.

Another case notified as Enteric proved to be Typhus Fever. Fortunately no other cases occurred and the origin of this particular one could not be ascertained.

Table III.

CASES OF INFECTIOUS DISEASES NOTIFIED, 1903.

CLASSIFIED ACCORDING TO AGES.

	At all ages.	0—1	1—5	5—15	15-25	25—65
Diphtheria	107	...	35	46	14	12
Scarlet Fever	20	2	2	13	3	...
Enteric Fever	11	...	...	3	3	5
Typhus Fever	1	...	..	...	...	1
Total	139	2	37	62	20	18

CASES TREATED AT THE SANATORIUM AND AT HOME.

	St. Peter-Port.	St. Sampson's.	Vale.	Castel.	St. Saviour's.	St. Peter-in-the-Wood.	Torteval.	Forest.	St. Martin's.	St. Andrew's.	Total.
DIPHTHERIA—											
At the Sanatorium	56	5	2	6	1	4	...	...	8	1	83
At Home	8	1	2	1	1	5	2	1	3	...	24
Total	64	6	4	7	2	9	2	1	11	1	107
SCARLET FEVER—											
At the Sanatorium	11	...	...	1	..	1	...	...	3	...	16
At Home	1	...	1	...	...	2	...	...	...	..	4
Total	12	...	1	1	...	3	...	...	3	...	20
ENTERIC FEVER—											
At the Sanatorium	9	...	...	2	...	...	...	...	...	...	11
At Home	...	...	...	...	...	...	...	...	...	...	...
Total	9	...	...	2	...	...	...	...	...	...	11

TYPHUS FEVER—One case removed from Vale Parish.

DEATHS OCCURRING IN CASES OF NOTIFIABLE INFECTIOUS DISEASES.

REMOVED TO SANATORIUM AND IN THOSE ISOLATED AT HOME.

	St. Peter-Port.	St. Sampson's.	Vale.	Castel.	St. Saviour's.	St. Peter-in-the-Wood.	Torteval.	Forest.	St. Martin's.	St. Andrew's.	Total.
Diphtheria—											
At the Sanatorium...	4	...	...	...	...	...	...	...	...	...	4
At Home..............	1	1	1	...	...	2	...	...	...	...	5
Total	5	1	1	..	..	2	...	...	...	...	9
Scarlet Fever—											
At the Sanatorium...	...	...	..	...	...	...	...	...	1	...	1
At Home..............	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	. .	...	...	...	...	...	1	...	1
Enteric Fever—											
At the Sanatorium...	3	...	...	...	...	...	...	...	...	...	3
At Home	...	...	...	...	...	...	...	...	...	...	...
Total	3	...	...	...	...	...	...	...	...	...	3

B.—NON-NOTIFIABLE DISEASES.

TUBERCULOSIS.

The incidence of Tuberculosis has been very heavy during the past year, no less than 102 deaths being reported as due to this cause, and 73 of this number figure as "Pulmonary Tuberculosis."

These figures stand out in sharp contrast to those of other infectious diseases which are so low for the year, but can be partly explained by the long continued cold and damp with the corresponding lack of sunlight, which have kept sufferers from the disease confined to their houses, and also making them more prone to "catch cold." It has also, it is to be feared, given rise to a larger percentage of cases of "house infection" than is usually the case.

In 1903 therefore one out of every six deaths must be attributed to a disease which, under ideal conditions, is preventible.

That these ideal conditions are not at the present time attainable, should only stimulate us to approach them as nearly as we possibly can. Amongst the predisposing causes of the disease are overcrowding, intemperance, deficiency of food, dampness of houses and soil, insufficient and impure air, exposure to rapid alterations of temperature, sedentary occupations, especially those requiring cramped positions, and as a sequel, of other illnesses. Contrary to popular opinion, heredity plays but a very small part in its spread.

In 1901, Koch said, "Hereditary tuberculosis is extremely rare, and we are at liberty, in considering our practical measures, to leave this origin entirely out of account."

Tuberculosis is actually contracted by either inhalation, swallowing, or inoculation of matter containing the Bacillus Tuberculosis. The former method accounts for by far the larger number of cases, the second a much smaller number, and the latter an infinitesimal proportion.

The preventive measures are therefore, the destruction of all infective discharges from persons affected, and adequate supervision of food supplies to ensure that they be not diseased or subsequently contaminated with the germs of the disease.

As most valuable practical measures two are especially important, viz. : regulations controlling the milk supply and the disinfection of rooms and houses. Voluntary and compulsory notification of cases of Phthisis has been tried in many places with excellent results, but has not up to now being generally adopted.

The filthy habit of indiscriminate spitting should be prohibited by law, as is now done in other places.

Eight houses have been disinfected in the course of the year ; in several instances applications having been made to the Board upon the initiative of the tenants.

In 1903 leaflets entitled "Useful Hints to Consumptive Patients" were issued by the Board, which, it is hoped, will have had some influence in checking the spread of Tubercular diseases.

A few words of caution might be given to those unfortunate patients who are in the later stages of Tuberculosis with such organic changes that life cannot be prolonged under any conditions. So called " cures " succeed one another with bewildering rapidity and with little or no practical basis for their claims. The reports of these cures are spread broadcast by the press, often without their obvious limitations being noticed, and the unfortunate sufferers and their friends experience again and again the pangs of disappointed hopes, only in the end to be shrouded with sorrow and overcome with despair. The same remarks also hold good for the so-called "Cancer specifics." Unfortunately there is, at present, no specific cure known for either of these diseases.

THE KING EDWARD SANATORIUM.

This new hospital was opened for the reception of patients on the 1st of January, 1903, when six patients were transferred from the Town Isolation Hospital.

During the year 113 patients were treated there, 83 being Diphtheria, 16 Scarlet Fever, 11 Enteric Fever, 1 Typhus Fever and 2 Doubtful or Non-notifiable cases. Therefore 81 per cent. of cases notified were treated there and only 19 per cent. at home.

These are gratifying figures for the first year of working, and in the future it is to be hoped that a still larger percentage of infectious cases will receive the benefits of hospital treatment.

An isolation hospital cannot be compared with an ordinary hospital either as regards the number of cases treated or the number of staff necessary. The point to be considered being mainly, the number of wards isolated from each other it is necessary to keep open at any given time, and not the number of patients it shelters.

In the course of the Diphtheria outbreak in December, the limit of its accommodation was all but reached, the greatest number of patients under treatment at one time being 38.

During the year the block containing the large coal store and mortuary was built, but the want of proper appliances for the laundry was a great inconvenience. This has, however, been since remedied by the grant of the States for the sum necessary to purchase them.

The health of the staff has been on the whole good, but one nurse contracted Scarlet Fever, and another during the time of great pressure was dangerously ill for a period of over two months.

I must record how greatly I am indebted to your Matron, Miss Banks, for her constant care and attention to the welfare of the patients and the general working of the Sanatorium, an opinion which I venture to think will be fully shared by the members of the Board.

SANITARY INSPECTOR.

The following are the details of Mr. Le Brun's work for the year :—

Articles Disinfected.

Blankets, sheets and counterpanes	1,089
Bolsters and pillows	435
Feather and flock beds	124
Mattresses	294
Sundry Articles	3,089
Several Militia Huts and 654 Militia mattresses and pillows.	
Houses for non-notifiable cases	25
Wards at the Sanatorium	25
Rooms disinfected	169
Schools disinfected—Holy Trinity Infant	
„ „ Vauvert Infant at "Salem" (twice).	
Houses visited and re-visited	216
Cases removed to Sanatorium including those transferred from the Town Isolation Hospital	120

The building situated in the Town Hospital yard, and formerly used as an Isolation Hospital for Diphtheria, was also thoroughly disinfected upon its ceasing to be used for that purpose.

Again I have to bring to the notice of the Board the careful and painstaking work of Mr. Le Brun. No articles have been damaged during the year and therefore no compensation has been demanded. This is, I think, an unusual experience, as it has been the case for two consecutive years.

WATER SUPPLY.

Mr. J. S. Beresford's report dealing with this matter was submitted to the States in November last. He arrived at three conclusions ftom his study of the present Waterworks supply, namely : that the existing wells and areas drained by them could not furnish the amount of water required by the Island, that artesian wells could not be employed to supplement them, and that no further development of the supply drawn from quarries could be in any way suggested. He recommended the construction of a large reservoir with catchment area in the Talbots valley. The consideration of this scheme was, however, postponed by the States to allow the Waterworks Company to submit one of their own as an alternative.

In Guernsey there are no factories requiring large quantities of water for trade purposes, but their place is taken by the numerous greenhouses relying

1902

upon the Waterworks for their supply. Some of these are supplied by a system separate from that used for domestic purposes, and this water is pumped from disused quarries.

It is, however, with the domestic water supply that we are now concerned.

Read Water

A large proportion of houses in the Town and the thickly populated part of the Vale and St. Sampson's parishes rely upon wells for their water supply. To put it mildly the water of many of these wells must be classed as "suspicious," and the surroundings of a large number are so saturated with filth and sewage, that even without an analysis, the water from them could be described as "dangerous" for drinking purposes.

In very many instances water has to be carried for considerable distances and perhaps up two or three flights of stairs. This is particularly so in the Town parish, where large and lofty houses at one time occupied by well-to-do families are now, owing to the large increase of population, let out in tenements.

The "drawers of water" are too often delicate women or children of tender age, to whom the task of pumping and carrying the water is a labour beyond their strength.

Read Drains

It is no wonder then that the minimum amount of water is made to suffice for domestic and washing purposes, and that little is available for the flushing of closets and drains.

I have been informed of instances where, owing to the small quantity of water used, sewer gas interceptors have repeatedly become blocked, until in desperation the tenants have had the drains opened and the interceptors removed, thus leaving the way open for the emanations from the sewers to to enter their dwellings.

To put it shortly, "every house should be provided with an adequate water supply," and if this be not provided by private enterprise, it is the duty of the proper authorities to place it within the reach of everyone, particularly the poorer and most needy classes.

In a place where high winds are often prevalent and many of the houses are lofty as well as old, the dangers of destructive and extensive fires occurring where there is no constant system of high pressure water supply are too obvious to need further comment.

REFUSE DESTRUCTION.

Under an agreement with the authorities of St. Peter-Port parish, the Guernsey Railway Company are now laying down plant for the purpose of destroying refuse, consequently in addition to the advantages attending destruction, the refuse will now acquire an economic value. I believe that this plant will be shortly in working order.

Parts of the parishes of St. Sampson's and the Vale really comprise a thickly populated urban area, and a joint Board of the Douzaines of these two parishes should be formed to follow the example of the Town authorities and insist upon the periodical collection of refuse from this area, and its destruction.

Unfortunately during the year a new dust-cart of the present type has been constructed; it is to be regretted that this obsolete and insanitary vehicle should have been adopted instead of a modern sanitary cart, which could probably have been procured at no greater cost.

OVERCROWDING.

There can be no doubt that serious overcrowding exists in parts of the Island and that highly congested districts are to be met with, especially in the urban areas.

It is very difficult for the working man with a family to secure adequate housing accommodation, or indeed any accommodation at all, at a rental within his means, the demand for houses being so great, and most landlords prefer people without children or those with small families as their tenants. The result is that even very small houses are sublet and occupied by two or more families.

The numbers of persons thus herded together is often so great that health, cleanliness, and morality cannot but suffer under these conditions.

Few people are aware what a large number of honest, hard-working men and women are striving to bring up their children in decency and morality, under conditions of the greatest difficulty. Their brave struggles against adverse circumstances are but little known; the drunkard and the improvident too often represent the poorer classes in the popular mind.

Where land is valuable and people require to live close to their work, model dwellings in flats, present the only practical solution to the difficulty in housing the working classes, and freeing them from the extortions of the "rack landlord."

In these dwellings it is possible to have adequate and satisfactory sanitary fittings, to provide suitable accommodation at a moderate rental, and withal to pay a good return upon the capital invested in them.

In the larger blocks of dwellings both baths and and wash-houses with drying grounds could be provided, although I do not consider that such baths, which would be few in number, could take the place of public baths, which are really a necessity in a place with a large working class population.

The importance of this subject, and its bearing upon the health and well-being of future generations is so great, that I do not hesitate to bring it forward.

It is the duty of an M.O.H. to be an enthusiast, perhaps even a dreamer. The Board, whose servant he is, will decide whether his suggestions are practicable or no.

In addition to the leaflets, " Useful Hints to Consumptive Patients," the Board also issued one entitled " How to bring up Children." It was written in simple language so that it could be understood by any uneducated person, and copies were sent by the Supervisor to all the Registrars of the Island, with a request that a copy should be given to any person registering a birth, and desiring to have one.

It is with pleasure I am able to say that the difficulties attending the carrying out of sanitary improvements during the year have been materially lessened, and in only a few cases was any serious difficulty encountered.

Both the Poor Law Hospitals have had their sanitary and drainage systems improved. In the Town Hospital this work has been carried out in a very thorough manner, and although much still requires to be done at the Castel Hospital, the main drainage system is being entirely re-modelled in a satisfactory way by the building of an installation of " Septic Tanks."

Unfortunately neither the draft of the Death Registration Law nor that dealing with Public Health has been considered by the Royal Court during the year under review, so that new houses are daily being erected without their sanitary arrangements being approved by anyone but the owner.

It is no empty form of words, but with genuine feeling, that I ask the Board to accept my acknowledgment of the support and confidence they have always given me.

HY. DRAPER BISHOP, M.D.,
M. O. H.

REPORT ON THE RAINFALL, SUNSHINE AND TEMPERATURE OF GUERNSEY DURING 1903,

WITH REFERENCE TO THE INCIDENCE OF SCARLET FEVER AND DIPHTHERIA.

The plan of showing the partial dependence of the above diseases on weather changes, by means of curves is, in this report, adhered to.

It is necessary to note that the curves of Sunshine and Rainfall are reversed, because by that means the fact that increase of sunshine and rain tend to diminish disease is more visible, for the disease curves tend to rise and fall with the sunshine and rain curves instead of crossing them.

The effects of weather follow instead of being coincident; hence any increase of disease dependent on weather elements are to be found a week or two later.

Weekly totals and means have been used.

It is also necessary to report the caution printed in last year's report as follows:—" It must be remembered that no weather element can *cause* the diseases discussed, and this report can only show the effect of variations in the incidence of the diseases as far as the elements, as separate factors, are able to influence them.

Thus sunshine is supposed to destroy the germs of Scarlet Fever; it therefore follows that a deficiency of sunshine at any time in the year would re-act on an epidemic, *when it exists*, by permitting it to grow to unusual dimensions, but the deficiency *would not cause* the epidemic by washing the germs to lower levels and down the water streams."

It is therefore only the modifications and abnormal increase of epidemics which can be said to be caused by weather.

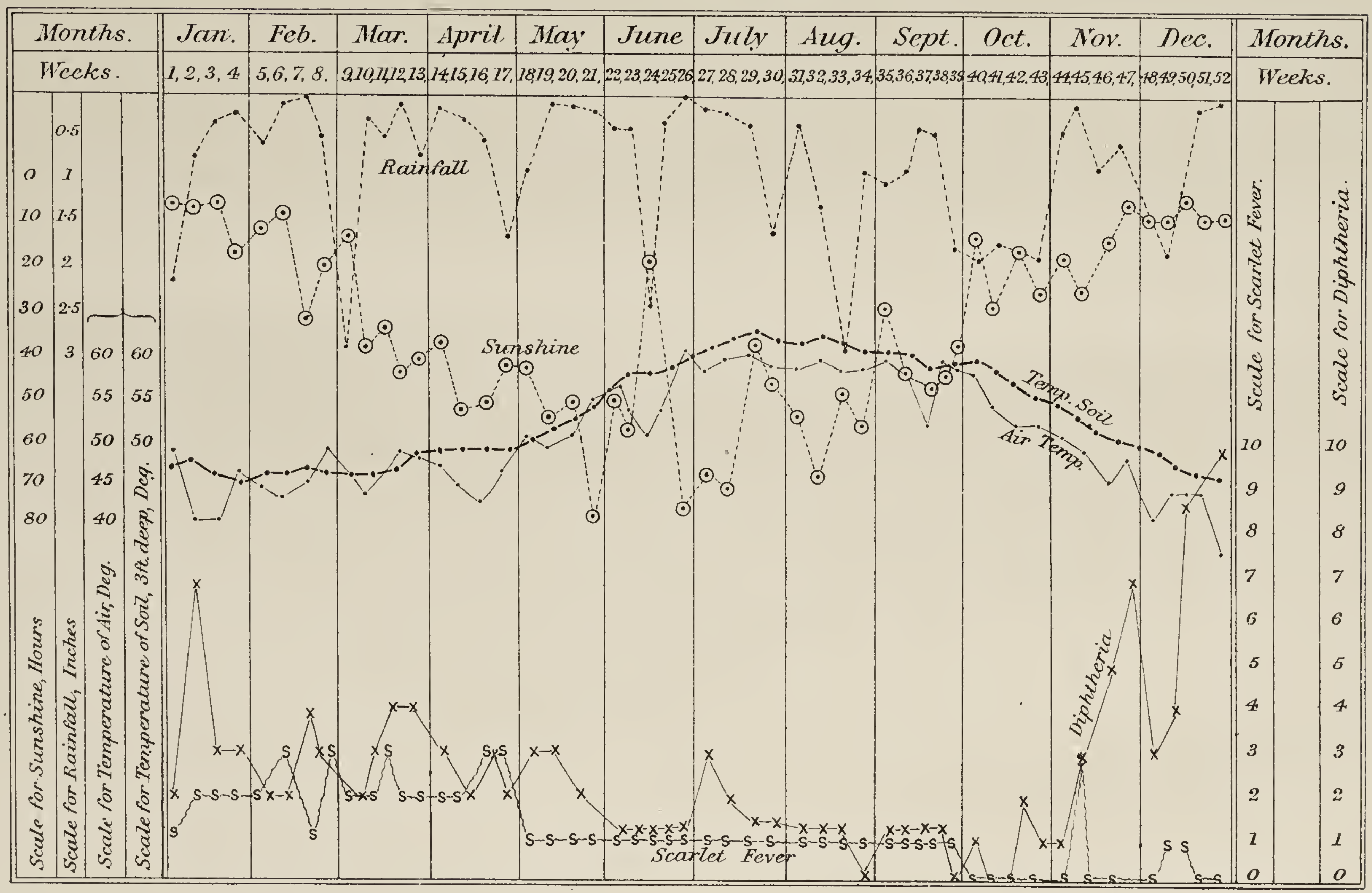
We have now an element introduced which materially interferes with the normal curves of the diseases discussed, viz., Isolation.

A glance at the curves of this year compared with that of last year (printed in the Billet for the 9th September, 1903) will show the serious and extended epidemics of that year are absent this.

In studying the weather it does not appear that the cause of the diminished number of cases can be due to favourable weather, although on the whole the weather tended towards a modification. It seems certain that the modification is the effect of isolation.

GUERNSEY 1903.

Weekly Curves of Temperature, Sunshine and Rainfall compared with those of Scarlet Fever and Diphtheria.



The curves will show that the weather effects were broad and were spread over seasons. Thus both diseases were more prevalent in winter, when sunshine is but small in amount.

Diphtheria was highest in January and December, which are the gloomiest months.

In 1902 it was not so; the diminished rainfall was coincident with the summer heat, and diphtheria was at its worst in June and July.

There are, here and there, a few indications of the struggle of the diseases to obtain a mastery when climatic conditions favoured them, a struggle unsuccessful, probably because of the strict isolation in force. Thus, an increase of diphtheria occurred in the 27th week following the diminished sunshine of the 24th week, but it quickly fell away.

At the commencement of November an epidemic set in, so that during that month and December the largest number of cases for the year occurred.

The curves will show that both rainfall and sunshine were falling off, thus rendering the fight with the diseases less successful.

Sunshine has been practically the same in 1903 as in 1902, but was abnormally high in March. A table is appended giving the detail.

Table I.

GUERNSEY SUNSHINE, 1903. BROOKLYN, FORT ROAD.

Months.	1903.	Average of Ten Years.	Above the Average.	Below the Average.	Sunless Days.		Percentage of the Possible.	The Possible Monthly Totals.	Daily Mean Sunshine for 1903.	Daily Mean Sunshine. Average of 10 years.
					1903.	Average.				
	Hours.	Hours.	Hours.	Hours.			1903.	Hours.	Hours.	Hours.
January	38·71	51·18	—	12·47	12	10	14	264	1·2	1·6
February	76·28	83·33	—	7·05	7	7	27	278	2·7	2·9
March	166·86	142·08	24·78	—	3	3	32	365	5·3	4·5
April	193·38	194·10	—	0·72	4	2	47	410	6·4	6·4
May	247·16	258·17	—	11·01	0	1	41	471	7·9	8·3
June	207·19	258·32	—	51·13	3	0	43	482	6·9	8·6
July	248·23	283·36	—	35·13	1	0	51	483	8·0	9·1
August	227·43	248·04	—	20·61	2	1	51	441	7·3	8·0
September	182·59	188·65	—	6·06	1	1	49	373	6·1	6·3
October...............	88·45	111·16	—	22·71	3	3	26	331	2·8	3·5
November............	59·77	67·03	—	7·26	6	8	21	271	2·0	2·2
December............	30·89	42·10	—	11·21	11	11	12	255	1·0	1·3
Totals ...	1766·94	1927·52	—	160·58	53	50	39	4,424	4·8	5·2

Although sunshine cannot have been said to be favourable to health, having been so deficient, the same is not to be said for rainfall, which was in excess of the average, and therefore assisted in keeping down the diseases discussed.

The details of Guernsey Rainfall are given in the second table.

Table II.

GUERNSEY RAINFALL FOR THE YEAR 1903.

Results of Daily Observations at Nine Stations compared with the Averages.

MONTHS.	SOUTH-EAST.		EAST.			NORTH-EAST.		S.-WEST	WEST.	Means of all Stations.	The 61 years' Averages
	Brooklyn, Fort Road.	Les Blanches, St. Martin's.	Villa Carey, Grange.	Rohais.	Caledonia Nursery, Couture.	Rich-mond. St. Sampson.	Les Mielles, l'Ancresse	Claire Mare, Perelle.	Cobo.		
January	3·81	3·70	3·37	3·47*	3·53	3·70*	3·76	3·26	3·32	3·54	3·81
February	1·66	1·69	1·34	1·54	1·65	1·53	1·57	1·40	1·48	1·54	2·60
March	3·66	3·37	3·12	3·74	3·69	3·69	3·15	3·20	3·31	3·43	2·48
April	2·79	2·39	2·35	2·66	2·68	2·52	2·34	1·94	2·17	2·42	2·36
May	1·59	1·57	1·52	1·58	1·56	1·68	1·82	1·36	1·51	1·57	2·14
June	3·12	2·83	2·63	2·90	2·64	2·86	2·68	3·06	2·82	2·83	2·01
July	2·22	2·06	2·09	1·97	2·12	1·92	1·78	1·76	1·80	1·97	2·20
August	5·43	4·95	4·93	5·34	5·13	5·14	4·64	3·81	4·04	4·82	2·47
September	3·95	3·74	3·88	3·78	3·92	4·24	4·05	3·32	3·48	3·81	3·12
October	6·47	6·12	6·01	6·38	6·24	6·42	5·88	4·89	5·59	6·00	4·86
November	2·74	2·58	2·24	2·54	2·20	2·85	2·58	1·86	2·02	2·40	4·42
December	3·44	3·20	3·21	3·74	3·51	3·25	2·76	2·65*	3·03	3·19	4·14
Jan.-March	9·13	8·76	7·83	8·75	8·87	8·92	8·48	7·86	8·11	8·51	8·89
April-June	7·50	6·79	6·50	7·14	6·88	7·06	6·84	6·36	6·50	6·83	6·51
July-Sept.	11·60	10·75	10·90	11·09	11·17	11·30	10·47	8·89	9·32	10·62	7·79
Oct.-Dec.	12·65	11·90	11·46	12·66	11·95	12·52	11·22	9·40	10·64	11·60	13·42
Year's Totals	40·88	38·20	36·69	39·64	38·87	39·80	37·01	32·51	34·57	37·56	36·62

Temperature was not extreme. The curves of both air and soil temperatures are fairly regular, and so far assisted in modifying epidemics.

January, February, March, May, October and November were above the average, the remaining months were below, hence the summer was cooler and the spring and autumn warmer than the average. As a whole the year was 2·2° too cold.

A. COLLENETTE, F.C.S.